Module 2.0

Name: _____ Class: _____

Force of a Golf Swing

GRADES 6-8

How far can you hit a golf ball?

Estimate: answer here yards

	Trial 1	Trial 2	Trial 3	Average Drive
Drive	answer here	answer here	answer here	answer here

Write a hypothesis on how you can increase your average drive distance.

answer here

Scaffold Experiment Guide:

Question: How can you increase the distance of a golf ball?

Hypothesis: If I answer here _____,
then the distance of the golf ball will increase because

answer here

© 2022 STEM Sports®, LLC. All rights reserved and unlicensed copying or use prohibited.

Name: _____ Class: _____

Force of a Golf Swing

GRADES 6-8

Variables:
Independent (check one):

☐ **Foot position** ☐ **Follow-through** ☐ **Type of club** ☐ **Speed of the swing**

☐ **Angle of swing** ☐ **Clubhead speed** ☐ **Height of the tee**

Dependent: Distance the ball travels.

Control: What other variables will you keep the same?

answer here

Experiment Design: Briefly summarize how you will collect your data.

answer here

© 2022 STEM Sports®, LLC. All rights reserved and unlicensed copying or use prohibited.

Module 2.0

Name: _____ Class: _____

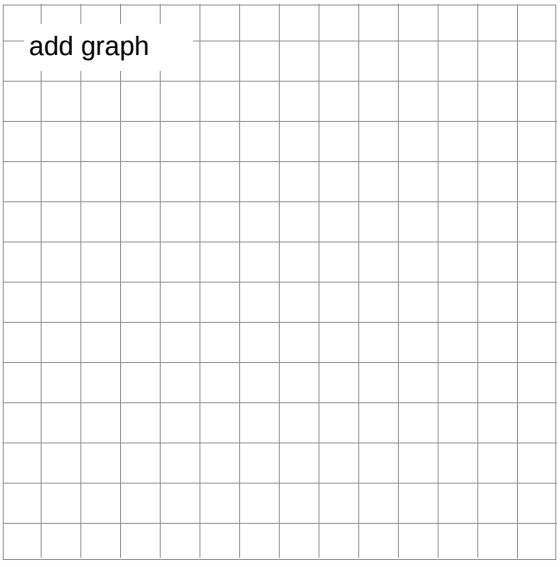
Force of a Golf Swing

GRADES 6-8

Data:
Record the distance in feet for 5 trials.

	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Average
Independent variable Distance (meters)	answer here	answer here	answer here	answer here	answer here	answer here
Independent variable Time (sec)	answer here	answer here	answer here	answer here	answer here	answer here
Control (same as *Explore*) Time (sec)	answer here	answer here	answer here	answer here	answer here	answer here
Control (same as *Explore*) Distance (meters)	answer here	answer here	answer here	answer here	answer here	answer here

Analyze: Find the average distance for both the controlled and changed swing and graph your average data comparing the two distances. If you are calculating the change in force using Newton's 2nd Law, calculate the average speed and then acceleration of the ball. Divide your speed by time. *Acceleration is initial speed subtracted from final speed divided by time. Since the initial speed is zero, just divide your speed by time.*



STEM sports science • technology engineering • math • sports

© 2022 STEM Sports®, LLC. All rights reserved and unlicensed copying or use prohibited.

Name: _____ Class: _____

Force of a Golf Swing

GRADES 6-8

Report: Answer the following questions.

Did your data support your hypothesis?

answer here

How did your adjustment (independent variable) change the distance of the ball?

answer here

How do you know your change (independent variable) influenced the distance the ball traveled?

answer here

How did your adjustment (independent variable) increase the force on the ball?

answer here

© 2022 STEM Sports®, LLC. All rights reserved and unlicensed copying or use prohibited.